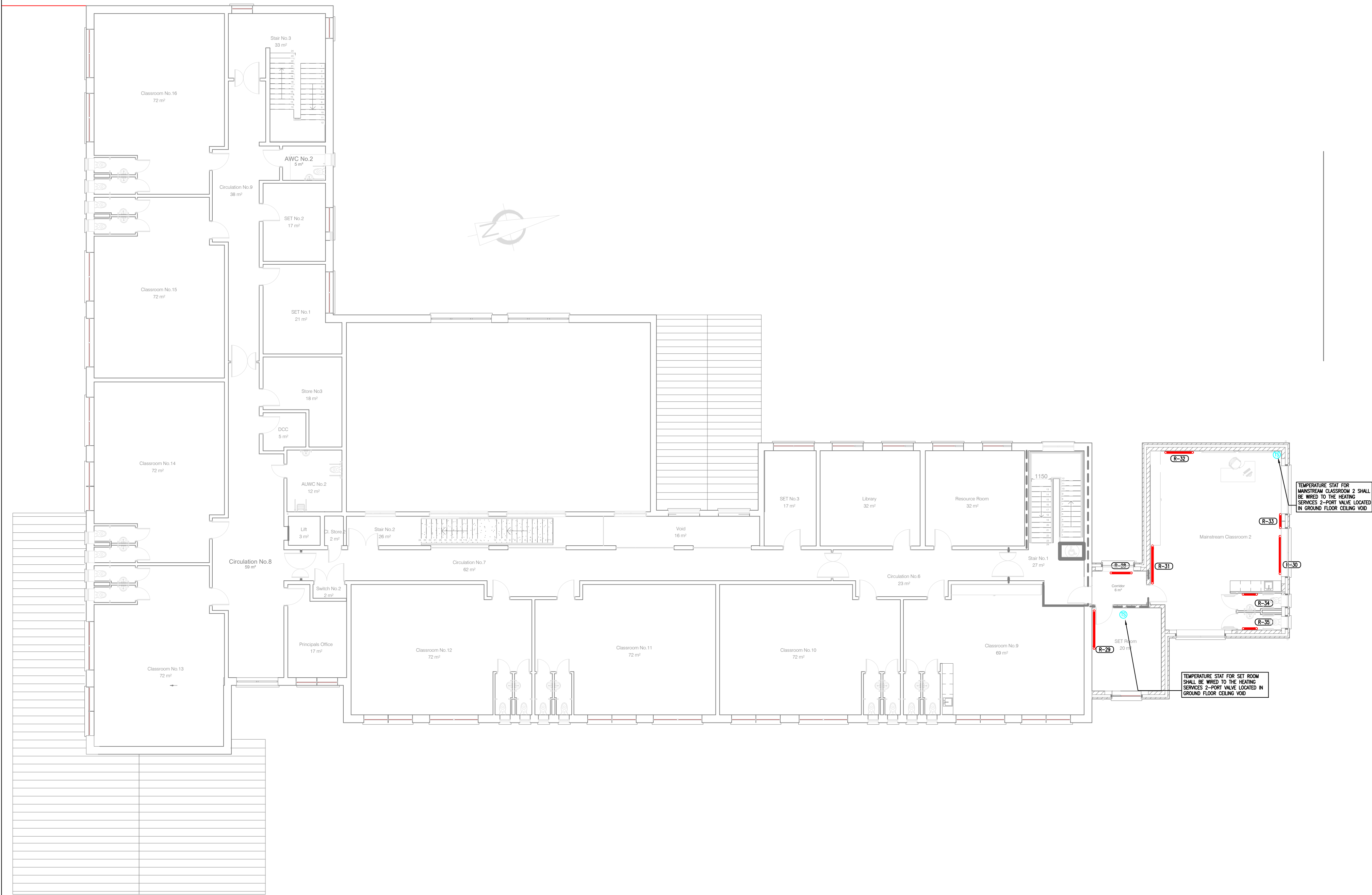




HEATING SERVICES LAYOUT

LEGEND OF SYMBOLS

	SURFACE RUN PIPEWORK		2-PORT ROOM MOTORISED VALVE (LINKED TO BMS SYSTEM)	H/L	HIGH LEVEL
	DROP/RISE IN PIPEWORK		L/L	LOW LEVEL	
	PIPEWORK AT HIGH LEVEL ABOVE CEILING (NON VISIBLE)		T.B.	TO BELOW	
	PIPEWORK ROUTE BELOW FLOOR LEVEL FROM HEATING MANIFOLD ARRANGEMENT		F.B.	FROM BELOW	
	RECESSED RADIATOR C/W 16mm F&R UNDERGROUND PIPEWORK PIPED BACK TO CENTRALLY LOCATED MANIFOLD		T.A.	TO ABOVE	
	* DENOTES RADIATOR NUMBER FOR RECESSED RADIATOR		F&R	FLOW AND RETURN	
			TRV	TERMOSTATIC RADIATOR VALVE	
			LSV	LOCKSHIELD RADIATOR VALVE	
			IV	ISOLATION VALVE	
			TS	EXTERNAL TEMPERATURE SENSOR	
			TF	EXTERNAL FROST STAT	
			F&R	FLOW AND RETURN HEATING MANIFOLDS	
				COMMISSIONING SET	

READ SERVICES
FROM TOP TO
BOTTOMREAD SERVICES
FROM LEFT TO
RIGHTCONTRACTOR TO ALLOW FOR
CHASING WALLS FOR HIGH LEVEL
RADIATORS WHERE NECESSARY.

Radiator Schedule							
Location	Ref	Style	Code	Type	Height	Length	Depth
Corridor	R28	Maxi WF	MAXW.059.203.11.233/WF	11	590	1030	130
SET Room	R29	Maxi WF	MAXW.059.123.11.233/WF	11	590	2030	130
Mainstream Classroom 2	R30	Maxi WF	MAXW.059.123.11.233/WF	11	590	2030	130
Mainstream Classroom 2	R31	Maxi WF	MAXW.059.123.11.233/WF	11	590	2030	130
Mainstream Classroom 2	R32	Maxi WF	MAXW.059.163.11.233/WF	11	590	1430	130
Mainstream Classroom 2	R33	Maxi WF	MAXW.059.203.11.233/WF	11	590	630	130
ACC WC 6	R34	Maxi WF	MAXW.059.203.11.233/WF	11	590	630	130
ACC WC 7	R35	Maxi WF	MAXW.059.203.11.233/WF	11	590	630	130

RADIATOR SCHEDULE

HEATING SERVICES NOTES:

- ALL SERVICES AS SHOWN ON THIS DRAWING SHALL BE INCLUDED IN THE FINAL TENDER PRICE.
- SAMPLE OF ALL EQUIPMENT SHALL BE APPROVED BY CLIENT, ARCHITECT AND BUILDING SERVICES ENGINEER PRIOR TO ORDERING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY SUITABLE FINAL ROUTES FOR PIPEWORK.
- AUTOMATIC AIR VENTS TO BE FITTED AT ALL HIGH POINTS THROUGHOUT THE PIPEWORK SYSTEM. DRAIN COCKS TO BE FITTED AT ALL LOW POINTS THROUGHOUT THE SYSTEM.
- THE CONTRACTOR SHALL ENSURE ALL RADIATORS ARE MEASURED IN RELEVANT LOCATIONS PRIOR TO ORDERING.
- FINAL LOCATIONS OF ALL RADIATORS TO BE CO-ORDINATED ON SITE WITH FIXED FURNITURE LAYOUTS. ALL PERIMETER RADIATORS SHALL BE CENTERED UNDERNEATH WINDOWS WHERE POSSIBLE.
- PIPEWORK TO RADIATORS IN THE ASD UNIT SHALL BE RUN IN THE CONCRETE FLOOR SLAB FROM THE CENTRALLY LOCATED F&R HEATING MANIFOLDS TO EACH RADIATOR AS INDICATED. PIPEWORK SHALL BE PRE-INSULATED PLASTIC PIPE WITH AN OXYGEN BARRIER AND SHALL BE A CONTINUOUS 'PIPE WITHIN A PIPE' INSTALLATION. THE PIPEWORK MUST BE PRE-INSULATED AND SLEEVED IN SUCH A MANNER THAT IT CAN BE FULLY WITHDRAWN AND RE-INSTALLED AT ANY TIME. EXTENSION PIECES FROM RADIATORS TO THE UPSTAND PIPES SHALL NOT BE ACCEPTABLE.
- ALL F&R UNDERGROUND PIPEWORK FROM EACH RADIATOR IN THE ASD UNIT AS INDICATED SHALL BE INDIVIDUALLY PIPED BACK TO THE CENTRALLY LOCATED MANIFOLDS AND PIPEWORK SHALL BE 16mm F&R PIPE WITHIN A PIPE. ALL 2-PORT VALVES FOR THE ROOMS SHALL BE INSTALLED AT THE MANIFOLD LOCATION, WHICH IS IN THE STORE ROOM AND SHALL BE WIRED TO THE TEMPERATURE STAT IN EACH ROOM AS INDICATED.
- ELSEWHERE (APART FROM THE ASD UNIT) THE HEATING PIPEWORK BELOW CEILING LEVEL SHALL BE SURFACE MOUNTED THROUGHOUT. WHERE POSSIBLE, ALL DROPS TO RADIATORS IN CORRIDORS, SHALL BE LOCATED IN ADJOINING ROOMS. ALL SURFACE MOUNTED PIPEWORK BELOW CEILING LEVEL IN THE ASD UNIT SHALL BE BOXED-IN AND COVERED. ADVISE AND LIAISE WITH THE MAIN CONTRACTOR ON THIS.
- ALL EQUIPMENT TO HAVE LOCAL ISOLATING VALVES.
- ALL DIMENSIONS IN mm, UNLESS STATED OTHERWISE.
- RADIATOR CONNECTIONS SHALL BE BOTTOM OPPOSITE END UNLESS OTHERWISE STATED. RADIATOR CONNECTIONS TO BE 15mm FOR RADIATORS UP TO 4000 WATTS & 22mm ABOVE 4000 WATTS. ALL CONNECTIONS TO RADIATORS SHALL BE #15mm, UNLESS INDICATED OTHERWISE.
- ALL EQUIPMENT TO HAVE LOCAL ISOLATING VALVES.
- ALLOW FOR INSTALLING 2-PORT VALVES C/W STAT ON PIPEWORK TO RADIATORS IN ALL TEACHING SPACES, OFFICES AND OTHER OCCUPIED ROOMS AS INDICATED. SEE DETAIL ON DRAWING FOR PIPING ARRANGEMENT OF 2-PORT VALVES IN ROOMS. AS INDICATED, SOME 2-PORT VALVES FOR ROOMS SHALL BE LOCATED ABOVE THE CEILING AND FOR ROOMS IN THE ASD UNIT, THE 2-PORT VALVE SHALL BE LOCATED AT THE F&R HEATING MANIFOLD.
- ALL PIPEWORK IS SIZED BASED ON A FLOW TEMPERATURE OF 80 DEGREES CELSIUS AND A RETURN TEMPERATURE OF 60 DEGREES CELSIUS.
- THERMOSTATIC RADIATOR VALVES ARE TO BE INSTALLED ON RADIATORS AS INDICATED. THEY ARE NOT TO BE PROVIDED IN PUBLIC AREAS UNLESS SHOWN.
- ALL NEW SURFACE MOUNTED & EXPOSED LPHW PIPEWORK FOR THE HEATING SYSTEM PIPEWORK SHALL BE MEDIUM GRADE BLACK MILD STEEL TUBE. ALL UNDERGROUND PIPEWORK TO THE RADIATORS IN THE ASD UNIT SHALL BE A PRE-INSULATED PLASTIC PIPE WITH AN OXYGEN BARRIER AND SHALL BE A CONTINUOUS 'PIPE WITHIN A PIPE' INSTALLATION.
- NEW MAINS RUN OF PIPEWORK SHALL BE INSTALLED IN THE AREAS AS INDICATED. THIS IS INDICATIVE ONLY AND IF THE CONTRACTOR FINDS A MORE CONVENIENT ROUTE FOR PIPEWORK ABOVE THE CEILING ON SITE THEN THAT WILL BE ACCEPTABLE.

GENERAL NOTES:

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL DRAWINGS & SPECIFICATIONS.
- THE CONTRACTOR SHALL CO-ORDINATE FULLY WITH ALL OTHER TRADES BEFORE COMMENCING WORK. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE NECESSARY INFORMATION TO ALLOW THE MAIN CONTRACTOR CO-ORDINATE ALL SERVICES.
- THE MECHANICAL CONTRACTOR SHALL ALLOW FOR CO-ORDINATING THE MECHANICAL INSTALLATION WITH THE ELECTRICAL CONTRACTOR ON SITE. EXTRA COSTS INCURRED DUE TO THE CO-ORDINATION EXERCISE NOT BEING COMPLETED WILL NOT BE ACCEPTED BY THE ENGINEER.
- DO NOT SCALE THIS DRAWING. ALL DIMENSIONS TO BE TAKEN ON SITE.
- THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL MECHANICAL SERVICES INDICATED ON THIS DRAWING.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY SUITABLE FINAL ROUTES FOR PIPEWORK, MECHANICAL SERVICES, ETC. AS INDICATED ON THE DRAWINGS.
- NEW MAINS RUN OF MECHANICAL PIPEWORK SHALL BE INSTALLED IN THE AREAS AS INDICATED. THIS IS INDICATIVE ONLY AND IF THE CONTRACTOR FINDS A MORE CONVENIENT ROUTE FOR THE MECHANICAL SERVICES ON SITE THEN THAT WILL BE ACCEPTABLE.
- FINAL LOCATION OF ALL ITEMS OF PLANT/EQUIPMENT/PIPEWORK, ETC. SHALL BE AGREED ON SITE WITH THE EMPLOYERS REPRESENTATIVE AND THE CLIENT.
- ALL SERVICES THROUGH FIRE BARRIERS SHALL BE SLEEVED EACH SIDE OF THE BARRIER. THE MAIN CONTRACTOR SHALL ALLOW FOR FIRE PROOFING THE OPES AFTER SERVICES IS INSTALLED.
- THE CONTRACTOR SHALL ALLOW FOR ALL NECESSARY LABOUR, WIRING AND ATTENDANCES IN COMPLETING ALL THE MECHANICAL WORKS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.
- ASD UNIT: ALL MECHANICAL SERVICES BELOW CEILING LEVEL FOR THE MECHANICAL INSTALLATION IN THE ASD UNIT SHALL BE RECESSED/CONCEALED AND FINISHED FLUSH WITH THE FINISHED WALL, UNLESS STATED OTHERWISE. LIAISE WITH THE MAIN CONTRACTOR FOR ALL NECESSARY CHASES OR BOXING OUT TO CONCEAL SERVICES IN THE UNIT.
- GENERAL AREAS (EXCLUDING ASD UNIT): THE MECHANICAL INSTALLATION IN THESE AREAS SHALL BE GENERALLY SURFACE MOUNTED.

T1	22.07.2026	K. DAVITT	G. BENNDORF
REV	DATE	PREPARED BY/PROJECT ENGINEER	QUALITY CHECK BY:
M&E CONSULTANT			
GALILEO ENERGY SERVICES			
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Architect M'CLOUGHLIN ARCHITECTURE			
Unit A6, Elm House			
Millennium Park, Naas			
Co.Kildare, Ireland			
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